

Guanghao SUN

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Education

Master's degree in Mechanical Engineering

Master's degree program

Supervisor: Dr. Rui Hou, Prof. Jialin Hou, Prof. Yong Liu

Shandong Agricultural University

September 2022 - June 2025

Bachelor's degree in Automation

Bachelor's degree program

Thesis: Tillerling Recognition of Wheat Based on Adaptive Linear Spanning Network

Shandong Agricultural University

September 2018 - June 2022

Research experience

Beijing University of Posts and Telecommunications

Center for Artificial Intelligence in Medical Imaging, (CAIMI)

April 2022 - Present

Beijing, China

- Improve diagnosis of mammographic breast cancer.
- Applied deep learning to optimize breast cancer detection system.
- Streamlined internal meme generation pipelines.

Duke University

Research Assistant

April 2022 - April 2023

Durham, USA

- Collate and analyze OPTIMAN Dataset
- Construct radiomics feature engineering
- Segmentation of breast calcifications in mammography images

Research Interests

Key words: medical image analysis, computer vision, deep learning, and machine learning.

My research focuses on developing innovative machine learning and computer vision approaches for medical data analysis, aiming to create intelligent systems that enhance clinical decision-making and improve human-machine interactions in areas such as diagnostic assistance and cancer detection.

Publications (Google Scholar)

Conference Papers

1. G. Sun, L. Si, J. Hou, Q. Yang, Y. Liu and R. Hou, "Performance Assessment of Malignant Masses Detection from Diagnostic Mammography," 2024 IEEE International Symposium on Biomedical Imaging (ISBI), Athens, Greece, 2024, pp. 1-4, doi: 10.1109/ISBI56570.2024.10635319

Awards and Honors

National Undergraduate Electronics Design Contest

The Second Prize

Thesis: Non-contact object shape and size measurement

September 2019

Shandong, China

The Chinese Mathematics Competitions

The Second Prize

September 2021

Shandong, China